

DaimlerChrysler AG

Patent Claims

5 1. A method for operating a drive train of a motor vehicle having

- a drive machine (11),
- a transmission (14) and
- at least one control device (12) by means of which 10 a torque which is output by the drive machine (11) can be adjusted,

wherein the control device (12)

- evaluates temperature information relating to a temperature of the transmission (14) and
- 15 - limits the torque as a function of the temperature information in order to protect the transmission (14), characterized in that the control device (12)
- defines a maximum acceptable power (P_{max}) of the drive machine (11) as a function of the temperature 20 information,

- determines a maximum acceptable torque (M_{max}) from the maximum acceptable power (P_{max}) taking into account a rotational speed of the drive machine (11), and
- limits the torque which is output by the drive 25 machine (11) to the maximum acceptable torque (M_{max}).

2. The method as claimed in claim 1, characterized in that the maximum acceptable power (P_{max}) of the drive machine (11) is stored in the control device (12) as a 30 function of the temperature information.

3. The method as claimed in one of the preceding claims, characterized in that the control device (12) limits the torque only if a force flux is established 35 between the drive machine (11) and driven vehicle wheels (20).

4. The method as claimed in one of the preceding

claims, characterized in that

- the transmission (14) has a temperature sensor (16) which has a signal connection to the control device (12), and
- 5 - the control device (12) limits the torque as a function of the temperature information of the temperature sensor (16).

10 5. The method as claimed in one of the preceding claims, characterized in that the transmission (14) is embodied as an infinitely variable transmission, in particular an infinitely variable wrap-around gear mechanism.